

*The Southern
Cypress Manufacturers'
Association*

*Standard Grades and
Classifications of*

Cypress and Tupelo
(Bay Poplar)



Published, January 1, 1916

(Fifth Edition, April 10, 1919)



Offices:

New Orleans, La. and Jacksonville, Fla.

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GRADING RULES

• • FOR • •

Cypress Lumber and Shingles

ADOPTED NOVEMBER 17, 1915

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The Southern Cypress Manufacturers' Association
and also adopted by

American Hardwood Manufacturers' Association

GENERAL INSTRUCTIONS.

The aim of these grading rules is to harmonize the natural differences which exist in the timber sawed at the various mills in this Association, in an effort to make the shipments of lumber from the different mills uniform and of equal intrinsic value, grade for grade.

To that end, cypress lumber shall be graded according to the following rules and specifications bearing in mind that as no arbitrary set of rules and specifications can be maintained in every case, much must be left to the common sense and best judgment of the inspector.

In considering these grading rules it should be borne in mind that the lower line pieces are described and a series of defects are admitted in some grades, the very nature of which will prevent all of them from appearing in the same piece. The grade will include all pieces up to the next higher grade, and the material will be of a better average quality than the permitted defects would indicate.

Lumber shall be manufactured and shipped in standard lengths and thicknesses.

All lumber shall be tallied surface or face measure, the tally counted up, and the one-quar-

ter or one-half added to the total where the lumber is one and one-quarter or one and one-half inches thick, and two inches and thicker to be multiplied by the thickness.

In the measurement of all random width lumber, fractions exactly on the one-half foot are to be given alternately to the buyer and the seller; the fractions below the one-half foot are to be dropped, and all fractions above the one-half foot are to be counted to the next higher figure on the board rule.

In "line boards," pieces 14' and longer shall be given the advantage in grade; pieces 12' and shorter shall be reduced in grade.

Recognized defects in cypress are knots, knot holes, shakes, splits, wane, worm holes, stained sap and peck.

STANDARD DEFECTS.

A standard knot is sound and not to exceed $1\frac{1}{4}$ " in diameter.

A small sound knot is one not exceeding $\frac{3}{4}$ " in diameter.

Two small knots not to exceed in extent or damage one $1\frac{1}{4}$ " knot.

One straight split not to exceed in length the width of the piece.

Worm holes not exceeding in damage one standard knot.

Ordinary season checks shall not be considered a defect in any grade.

Ordinary season checks are such as occur in lumber properly covered on yard, or season checks of equal size in kiln dried lumber.

STANDARD LENGTHS.

Tank, factory select, shop, select common, heart select common, No. 1 common, flooring, ceiling, partition, bevel siding, bungalow bevel siding and drop siding shall be 8' and longer.

A, B and C shall be 10 to 20 ft.

No. 2 common, box, peck, mouldings, panel, stock and battens shall be 6 to 20 ft.

Mouldings, panel stock and battens of all sizes, bevel siding, bungalow bevel siding, flooring, ceiling and partition will admit odd lengths below 10 feet.

STANDARD FINISHED SIZES OF CYPRESS.

All lumber shipped in the rough shall be of sufficient thickness or width to S2S or S2E to standard thickness or width, as follows:

THICKNESSES.

4/4 lumber S1S or S2S shall be $1\frac{3}{8}$ " thick.

5/4 S1S or S2S shall be $1\frac{1}{8}$ " thick.

6/4 S1S or S2S shall be $1\frac{3}{8}$ " thick.

8/4 lumber S1S or S2S shall be $1\frac{3}{4}$ " thick.

10/4 lumber S1S or S2S shall be $2\frac{1}{4}$ " thick.

12/4 lumber S1S or S2S shall be $2\frac{3}{4}$ " thick.

All flooring and partition shall be S2S and C. M.

4/4 flooring shall be $1\frac{3}{8}$ " thick.

5/4 flooring shall be $1\frac{1}{8}$ ". 6/4 shall be $1\frac{3}{8}$ ".

$\frac{3}{8}$ " ceiling shall be worked $\frac{5}{8}$ ", S1S only.

$\frac{1}{2}$ " ceiling shall be worked $\frac{7}{8}$ ", S1S only.

$\frac{5}{8}$ " ceiling shall be worked $\frac{9}{8}$ ", S1S only.

$\frac{3}{4}$ " ceiling shall be worked $1\frac{1}{8}$ ", S1S only.

$\frac{3}{8}$ " panel stock S2S shall be $\frac{7}{8}$ ".

$\frac{1}{2}$ " panel stock S2S shall be $\frac{5}{8}$ ".

$\frac{5}{8}$ " panel stock S2S shall be $\frac{7}{8}$ ".

$\frac{3}{4}$ " panel stock S2S shall be $\frac{9}{8}$ ".

5/4, 6/4, and 8/4 Baluster stock shall be worked to same finished thickness as lumber.

3"x3" to 8"x8" Turning Squares S4S shall be $\frac{1}{4}$ " less than the rough sizes.

Ceiling up to $3\frac{1}{4}$ " face to have one bead on one edge and ceiling wider than $3\frac{1}{4}$ " face to be beaded center and edge.

Drop Siding, either D. & M. or Shiplap, shall be $1\frac{3}{8}$ " thick.

Shiplap, or D. & M., shall be $1\frac{3}{8}$ " thick.

Grooved Roofing shall be $1\frac{3}{8}$ " thick.

WIDTHS.

All lumber S1E takes off $\frac{3}{8}$ ". S2E, $\frac{1}{2}$ ".

$\frac{4}{4}$ " and thicker flooring, ceiling and partition shall be $2\frac{1}{4}$ ", $3\frac{1}{4}$ ", $4\frac{1}{4}$ ", $5\frac{1}{4}$ " face.

$\frac{5}{4}$ ", $\frac{6}{4}$ " and $\frac{8}{4}$ " baluster stock shall be same width as finished thickness.

Drop Siding, D. & M., shall be $3\frac{1}{4}$ " and $5\frac{1}{4}$ " face. When worked shiplap it shall be $5\frac{1}{2}$ " over all, allowing $\frac{1}{2}$ " for lap.

8", 10" and 12" shiplap shall be worked 7", 9" and 11" face, $\frac{1}{2}$ " lap.

8", 10" and 12" D. & M. shall be worked $7\frac{1}{4}$ ", $9\frac{1}{4}$ " and $11\frac{1}{4}$ " face.

Grooved roofing shall be worked $9\frac{1}{2}$ " and $11\frac{1}{2}$ " face, size of groove $\frac{1}{2}$ " wide, $\frac{1}{4}$ " deep, located $1\frac{3}{8}$ " from outer edge of groove to edge of board.

Bevel siding or bevel cribbing shall be worked $\frac{1}{2}$ " less in width than the rough strip measure.

TANK.

Thickness: $1\frac{1}{2}$ ", 2", $2\frac{1}{2}$ ", 3" and 4".

Width: Shall be random widths, 5" and over wide.

Length: 8' and longer.

Shall be graded from the poorer side. Shall be free from sap.

Sound knots that do not impair the usefulness of the piece for tank purposes will be admitted.

A.

Thickness: 1" to 4".

Width: Shall be specified widths, 4", 5", 6", 8", 10", 12", 14", 16", 18", 20" and wider and 24" and wider, and may be furnished in assorted widths 4" to 12", admitting 20 per cent of 7", 9" and 11" widths, and may also be furnished in random widths 13" and wider.

Length: 10' to 20'.

Shall have a perfect face, free from sap, knots or other defects. The reverse side shall not be poorer than "B".

B.

Thickness: 1" to 4".

Width: Shall be specified widths, 4" 5", 6", 8", 10", 12", 14", 16", 18", 20" and wider and 24" and wider, and may be furnished in assorted widths 4" to 12" admitting 20 per cent of 7", 9" and 11" widths, and may also be furnished in random widths 13" and wider.

Length: 10' to 20'.

Shall be graded from the better side; the reverse side shall not be poorer than C.

Pieces 4" and 5" wide will admit 1" of bright sap and shall be free from knots and other defects.

Pieces 6" wide may have 1" of bright sap and one small sound knot.

Pieces 8" wide may have 2" of bright sap and one standard knot, or in lieu of one standard knot, two small sound knots.

Pieces 10" wide may have 3" of bright sap, and one standard knot, or in lieu of one standard knot, three small sound knots.

Pieces 12" wide may have 4" of bright sap and one standard knot, or in lieu of one standard knot, four small sound knots.

Pieces wider than 12" will admit any amount of bright sap and will admit other defects in proportion as width increases.

C.

Thickness: 1" to 4".

Width: Shall be specified 4", 5", 6", 8", 10" and 12" wide and will not be furnished wider than 12". May also be furnished in assorted widths 4" to 12", admitting 20 per cent of 7", 9" and 11" widths, and may also be furnished in random widths 13" and wider.

Length: 10' to 20'.

Shall be graded from the better side but the reverse side shall not be poorer than No. 1 Common.

Small sound knots, sound sap, bright or stained, a reasonable amount of pin worm holes and other defects will be admitted, but none that will prevent the use of each piece in its full width and length as a paint grade.

Pieces 8" to 12" wide will also admit one standard knot.

Pieces wider than 12" will admit defects in proportion as width increases.

FACTORY SELECTS.

Thickness: 1" to 4".

Width: 1" thickness shall be 5" wide or wider. 1¼" and thicker shall not be less than 5¼" wide.

Length: 8' to 20'.

Shall be graded from the poorer side.

In the cuttings bright sap shall be admitted. The cuttings shall otherwise be free from defects. Parts not included in the stipulated percentage of good cuttings may be thin and may be of any grade.

1" thickness shall cut at least 80 per cent of cuttings or rippings or both, 5" wide or wider, by 3' long or longer, and 9½" wide or wider, by 18" long or longer, and strips 2" wide or wider, ripped the entire length of the piece, from pieces 8' to 12' long, and 2" wide or wider, 12' long or longer, ripped from pieces 14' and longer.

1¼" and thicker shall cut at least 80 per cent of cuttings and rippings or both, as follows: 5¼" wide or wider, by 3' long or longer; 9" wide or wider, by 2' 4" long or longer, and strips 2" wide or wider, ripped the entire length of the piece from pieces 8' to 12' long, and strips 2" wide or wider 12' or longer ripped from pieces 14' or longer.

SHOP.

Thickness: 1" to 4".

Width: 1" thickness shall be 5" wide or wider. 1¼" and thicker shall not be less than 5¼" wide.

Length: 8' to 20'.

Shall be graded from the poorer side.

This grade shall cut for factory use 50 per cent to 80 per cent of the same size cuttings or rippings or both as the corresponding thickness in the grade of Factory Selects.

Bright sap shall be admitted in the cuttings, which shall otherwise be free from defects.

Parts not included in the stipulated percentage of good cuttings may be thin, and may be of any grade.

SELECT COMMON.

Thickness: 1" and thicker.

Width: Shall be specified widths, 3", 4", 5", 6", 8", 10" and 12" wide.

Length: 8' to 20'.

Will admit sound sap, bright or stained, sound knots, a small amount of tight shake, season checks, also end checks not over 6" in length, and a reasonable amount of pin worm holes well scattered over the piece.

Pieces 3" to 6" wide will not admit knots over 1½" in diameter.

Pieces 8" to 12" wide will not admit knots over 2" in diameter.

Shall be graded from the better side. On the reverse side the knots may be larger and coarser and a slight amount of peck will be admitted, but such defects shall not be coarse enough to materially impair the strength of the piece.

HEART SELECT COMMON.

This grade shall be the same as Select Common, except that sap and pin worm holes will not be admitted.

NO. 1 COMMON.

Thickness: 1" and thicker.

Width: Shall be specified 3", 4", 5", 6", 8", 10" and 12" wide.

Length: 8' to 20'.

Shall be graded from the better side. Will admit sound sap, bright or stained, shake, season checks, pin worm holes, tight knots, straight end splits not exceeding in length the width of the piece, a slight amount of peck on one or both sides of pieces comparatively free from other defects, slight wane on one or both edges, not to exceed one-third the length of the piece, and other defects which will not prevent its use in the rough for common purposes in its full length and width.

NO. 2 COMMON.

Thickness: 1" and thicker.

Width: Shall be specified widths, 3", 4", 5", 6", 8", 10" and 12" wide.

Length: 6' to 20'.

Shall be graded from the better side. Will admit all defects allowed in No. 1 Common and will also admit unsound knots and slight peck on both sides. The defects shall not, however, be sufficient to prevent the use of each piece in its full length and width for common sheathing and fencing purposes.

BOX.

Thickness: 1" to 2".

Width: Shall be random width 3" and wider.

Length: 6' to 20'.

Each piece shall contain 66 $\frac{2}{3}$ per cent or more of sound cuttings, no single cutting to contain less than 72 square inches. No piece of cutting can be shorter than 2', nor narrower than 3". Sound cuttings will admit all the defects allowed in No. 1 Common. The waste material may be thin or absolutely worthless.

PECK.

Thickness: 1" and thicker.

Width: Shall be random or specified, 3" and wider. -

Length: 6' to 20'.

Shall admit the product of that part of the log known as pecky. Each piece shall have sufficient strength to permit its use as a low-grade sheathing, fencing, or foundation material.

SWITCH TIES.

Shall be cut to size and length specified.

Ends of ties shall be sawed square, and a variation of $\frac{1}{2}$ " longer or shorter than the length ordered will be allowed.

Shall be practically all heart, free from damaging knots, shake and splits.

Slight peck shall not be considered a defect.

CROSS TIES.

STANDARD NO. 1 PECK.

Shall be cut to size and length specified.

A variation of 1" longer or shorter than the length ordered will be allowed. Shall be practically all heart, free from damaging knots, shake and splits. Peck will be admitted, but there must be enough of sound wood in the ties to permit of proper spiking.

PANEL STOCK.

Thickness: $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ " and $\frac{3}{4}$ ".

Width: Shall be random width, 8" and wider.

Lengths: 6' to 20', admitting not over 15 per cent of 6' to 10', and not to exceed 5 per cent under 10'. Odd lengths admitted.

Shall be graded from the poorer side, B and better, except that bright sap will not be considered a defect.

BEVEL SIDING.

Thickness: $\frac{1}{2}$ ".

Width: 4", 5" and 6" wide.

Length: 8' to 20', admitting not over 15 per cent of 8', 9' and 10', and not to exceed 5 per cent under 10'. Odd lengths are not standard above 10'.

Shall be graded from the finished side A, B, C, and D, and 4' to 7' lengths, C and better.

A SIDING.

May have 1" of bright sap on thin edge, and may contain one small sound knot.

B SIDING.

Bright sap is not a defect in this grade.

May have three small sound knots or in lieu of knots a few pin worm holes, and may have slight wane on the thin edge.

In the absence of other defects, a small amount of stained sap will be admitted.

C SIDING.

May have one standard knot or four small sound knots or a few pin worm holes well scat-

tered over the piece. Sound sap, bright or stained, will be admitted.

Pieces containing coarse defects that can be removed in two cuts with waste not exceeding 10 per cent of the length, will be admitted, provided that not more than two of such cutting pieces shall be included in any one bundle.

Cutting pieces described herein will not be admitted in 4' to 9' lengths.

D SIDING.

May have any defect admitted in C, and may have other defects that will not cause a waste to exceed one-third the piece, provided that not exceeding three of such cutting pieces will be included in any one bundle.

FLOORING, CEILING, DROP SIDING, SHIP-LAP, MOULDED CASING, BASE AND GROOVED ROOFING.

Thickness: 1" to 2".

Width: Shall be specified widths, 3", 4", 5", and 6" wide.

Length: 8' to 20', admitting 15 per cent of 8', 9' and 10' lengths, and not to exceed 5 per cent of lengths under 10'. Odd lengths are not standard above 10'. May also be specified 4' to 7'.

Shall be graded from the finished side, or if both sides are finished, it shall be graded from the better side, A, B, C and D.

A FLOORING, ETC.

Must be all heart. The face side must be free from all defects.

B FLOORING, ETC.

Bright sap is not a defect, and will admit two small sound knots.

C FLOORING, ETC.

May have all sound sap, bright or stained, or may have one to five knots, the whole not aggregating over 3", or knots or other defects that can

be removed in two cuts with waste not exceeding 10 per cent of the length, provided that not more than 20 per cent of the pieces in any one shipment shall be of said cutting type; or may have ten pin worm holes, or may have check or split at one end not to exceed 10 per cent of the length of the piece.

In 4' to 7' lengths, pieces of the cutting type will not be admitted.

D FLOORING, ETC.

May have stained sap and pin worm holes, or may have unsound knots, or other defects, that will not cause a waste to exceed one third the piece, provided that not exceeding 30 per cent of the pieces in any one shipment shall be of said cutting type.

PARTITION.

Shall be same widths, lengths and thickness as flooring and ceiling, but shall be graded from the poorer side, A, B, C and D under flooring and ceiling rules.

WINDOW AND DOOR FRAME STOCK, JAMBS, ETC.

Window and door frame stock, rabbeted or plowed, shall be graded from the worked side "B" and Better, except that bright sap will not be considered a defect.

SHORT LUMBER.

Short lumber, up to and including 42" long, shall be graded, from the poorer side, "B" and Better, except that bright sap will not be considered a defect.

Short lumber, 4 ft. and longer, shall be graded from the better side "B" and Better, except that bright sap will not be considered a defect.

PICKETS.

Shall be graded No. 1 and No. 2.

1"x1" shall be Headed and S4S to 13-16"x13-16".

1 1/4"x1 1/4" shall be Headed and S4S to 1 1-16"x 1 1-16".

1½"x1½" shall be Headed and S4S to 1 5-16"x 1 5-16".

1"x3" shall be Headed and S4S to ¾"x2½".

No. 1.—Shall be well manufactured, bright sap no defect and may contain one small sound knot.

No. 2.—Shall admit stained sap, sound knots, pin worm holes, slight shake, and pickets thrown out of the No. 1 grade because of poor manufacture.

BATTENS.

Battens, both flat and O. G., are not mouldings. Same are invariably used with "common" lumber and shall, therefore, be graded select common and better, admitting all defects allowed in select common, but none that will prevent the use of each piece in full length for Batten purposes. ⅜" Battens shall be 1" strips S2S to 13-16"x2½", and resawed, or 1"x2¾" to 3" S2S and resawed. Unless otherwise specified, ⅜" or flat battens shall be S2S only and resawed.

O. G. Battens shall be manufactured in the sizes and pattern shown in the Universal Moulding Book.

TURNING SQUARES.

Sizes, 4x4 to 8x8. Lengths, 8' and longer.

Will admit one-quarter their size in sap on one corner, showing on two faces, and may contain one to five small sound knots.

CAR ROOFING AND SIDING.

"C AND BETTER" GRADE.—This grade will admit sound knots, stained sap, pin worm holes, very slight shake and other defects, but none that will prevent the use of each piece in its full width and length for car roofing and car siding; may be random or specified lengths and may be worked to pattern specified and graded from pattern side or S2S and C M and graded from the better side.

CAR LINING.

Shall be specified widths and 8 to 20 feet in length. Will admit tight knots, stained sap, pin worm holes, slight shake and other defects, but none that will prevent the use of each piece in its full width and length for car lining purposes.

SHINGLES.

BESTS.—A dimension shingle, 4", 5" and 6" in width, 16" long, each width packed separately, 5 butts to measure 2" when dry, to be all heart and free of shake, knots and other defects.

PRIMES.—A dimension shingle, 4", 5" and 6" in width, 16" long, each width packed separately, 5 butts to measure 2" when dry, admitting tight knots and sap, but free of shake and other defects, but with no knots within 8" of the butts.

This grade may contain shingles clipped two-thirds of the width and one-eighth of the length on the point.

STAR A STAR.—A random width shingle 3" and wider, 14" to 16" long, otherwise the same as primes.

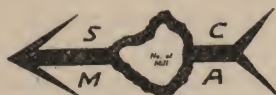
ECONOMY.—Dimensions 4", 5" and 6", each width separately bunched, admitting sap and sound knots, may have slight peck 5" from butts, imperfections on points no objection and admitting 14" shingles.

CLIPPERS.—All shingles below the above grades which are sound for 5" from the butts, worm holes and slight peck excepted, random widths 2½" and wider, admitting 12" shingles which are otherwise at least one grade higher.

The count of our manufacture of shingles, of all grades, is based on 4,000 lineal inches in width, making 1,000 standard shingles, consequently there would be only 667 6" shingles packed and counted as 1,000 standard shingles; 5" dimension being counted in like proportion.

In making re-inspections of shingles, one bundle out of 20 bundles taken at random, shall be cut open, the results of this investigation to form the basis of arriving at the grade of the entire shipment.

Each bundle of cypress shingles should contain the manufacturer's name and be plainly marked with the grade and the number of bundles to the thousand shingles. It should also contain the Association trade-mark as here indicated:



TRADE MARK REG. U.S. PAT. OFFICE

WEIGHTS OF CYPRESS AND TUPELO.

		Pounds per M.		
			S1S	S2S
		Green	Rough or Dry	Dry
Lumber 2½" and 3".....	5,000		3,500	2,900
Lumber 2"	5,000		3,200	2,600
Lumber, 1½", 1¼" and 1"	5,000		3,000	2,400
1" Lumber, Rough, Resawed			2,800	
1" Lumber, Rough, Resawed twice.....			2,700	
1" Lumber, S2S and Resawed				2,250
1" Lumber, Resawed and S2S afterwards.....				2,000
2" Lumber, Rough, Resawed twice.....			2,800	
¾" Panel Stock.....				1,100
½" Panel Stock.....				1,400
⅝" Panel Stock.....				1,700
¾" Panel Stock.....				2,200
Worked Flooring, Partition, Drop Siding, Shiplap Moulded Casing and Base.....				2,200
⅝" Ceiling.....				1,600
½" Ceiling.....				1,300
⅜" Ceiling.....				1,000
½" Bevel Siding.....				1,000
½" Bungalow Siding.....				1,000
⅝" Bungalow Siding.....				1,400

$\frac{3}{4}$ " Bungalow Siding.....	1,850
Shingles, all grades.....	300
Lath, $\frac{3}{8}$ ".....	500
Lath, $\frac{5}{8}$ ".....	900
Byrkit's Sheathing Lath.....	1,500
1"x1"—4' Pickets, Headed and S4S to 13-16"x13-16".....	800
1 $\frac{1}{4}$ "x1 $\frac{1}{4}$ "—2' Pickets, Headed and S4S to 1 1-16"x1 1-16".....	600
1 $\frac{1}{4}$ "x1 $\frac{1}{4}$ "—3' Pickets, Headed and S4S to 1 1-16"x1 1-16".....	900
1 $\frac{1}{4}$ "x1 $\frac{1}{4}$ "—4' Pickets, Headed and S4S to 1 1-16"x1 1-16".....	1,200
Dry	
1 $\frac{1}{2}$ "x1 $\frac{1}{2}$ "—2' Pickets, Headed and S4S to 1 5-16"x1 5-16".....	1,000
1 $\frac{1}{2}$ "x1 $\frac{1}{2}$ "—3' Pickets, Headed and S4S to 1 5-16"x1 5-16".....	1,500
1 $\frac{1}{2}$ "x1 $\frac{1}{2}$ "—4' Pickets, Headed and S4S to 1 5-16"x1 5-16".....	2,000
1"x3"—2' Pickets, Headed and S4S to $\frac{3}{4}$ "x2 $\frac{1}{2}$ ".....	850
1"x3"—3' Pickets, Headed and S4S to $\frac{3}{4}$ "x2 $\frac{1}{2}$ ".....	1,275
1"x3"—4' Pickets, Headed and S4S to $\frac{3}{4}$ "x2 $\frac{1}{2}$ ".....	1,700
O. G. Battens, 2".....	300
O. G. Battens, 2 $\frac{1}{2}$ ".....	350
O. G. Battens, 3".....	400
$\frac{3}{8}$ "x3" Battens S1S.....	300
1 $\frac{1}{4}$ "x1 $\frac{1}{4}$ "x18" Squares (add 60 lbs. for each 2" over 18") per M pieces.....	600
1 $\frac{1}{2}$ "x1 $\frac{1}{2}$ "x18" Squares (add 95 lbs. for each 2" over 18") per M pieces.....	850
2"x2"x18" Squares (add 165 lbs. for each 2" over 18") per M pieces.....	1,500

Classification and Inspection

—FOR—

TUPELO (Bay Poplar) LUMBER.

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GENERAL INSTRUCTIONS

For the Manufacture, Inspection and Measurement of Tupelo (Bay Poplar) Lumber

1. Lumber must be inspected and measured as the inspector finds it, of full length and width. He shall make no allowance for the purpose of raising the grade.
2. Exceptions to the general rules are stated under the caption of the respective grades.
3. Inspection must be made from the poor side of the piece, except as otherwise specified.
4. These rules define the poorest piece in any given grade, but the respective grades must contain all pieces up to the next higher grade.
5. In the following rules all widths and lengths mentioned are inclusive.

MANUFACTURE

1. Lumber should be properly manufactured, trimmed and edged, of good average widths and lengths. It must be of standard thickness when shipping dry, with the exception that in the grades of Common, the percentage not included in the cutting may be scant in thickness, provided the cuttings are of standard thickness and that there is no greater variation in the thickness of the board than is allowed in the rule describing missawn lumber.

2. Lumber showing greater variation in thickness than $\frac{1}{8}$ " at any point in stock cut $\frac{1}{2}$ " thick or less, or $\frac{1}{8}$ " in $\frac{5}{8}$ " and $\frac{3}{4}$ " stock, or $\frac{1}{4}$ " in 1" to 2" stock, or $\frac{3}{8}$ " in $2\frac{1}{2}$ " and thicker stock, must be measured at the thinnest part and classed as missawn, and graded and reported as such.

MINIMUM WIDTHS

1. 90% of the minimum widths mentioned in all grades of lumber must be full width; the remaining 10% may be $\frac{1}{4}$ " scant in width.

MEASUREMENT

1. In the measurement of lumber of random widths, fractions of over $\frac{1}{2}$ ', as shown on the board rule, must be counted up to the next higher figure; fractions of exactly $\frac{1}{2}$ ' and less, as shown on the board rule, must be counted back to the next lower figure.

2. A board rule on which the $\frac{1}{2}$ ' is clearly marked should be used.

3. Tapering lumber in standard lengths must be measured one-third the length of the piece from the narrow end.

TALLY

1. A piece tally in feet must be made of all lumber. All lumber of standard grades and thicknesses must be tallied face or surface measure, and this tally must be the number of feet, board measure, of 1" lumber. If the lumber is thicker than 1", then the tally so obtained must be multiplied by the thickness as expressed in inches and fractions of an inch. All lumber less than 1" must be counted face measure. When strips or stock widths are measured, a tally showing widths and lengths must be made.

HEART

1. Heart, where the extent or damage does not exceed the equivalent of standard defects allowed, will be admitted in the grade of Firsts and Seconds.

2. In the grade of No. 1 Common, no piece shall contain heart to exceed one-half its length in the aggregate.

SEASON CHECKS

1. Ordinary season checks are not to be considered defects, but if of so serious a character as to damage the lumber they are to be considered by the inspector.

SPLITS

1. Six inches of straight split in one end, or its equivalent in both ends, will not be considered a defect in the grade of Firsts and Seconds.

SAP

1. Bright sap is no defect unless so stated under caption of the respective grades.

STAIN

1. Stain that will surface off in dressing to the standard thickness must not be considered a defect.

BURLS

1. Burls that do not contain knots or unsound centers shall not be considered defects.

WANE

1. In the grade of Firsts and Seconds, wane along the edge not exceeding one-sixth the length of the piece, or its equivalent at one end or both ends, not exceeding in thickness one-half the thickness of the piece, and not exceeding in width, as shown in the following table, is not a defect:

$\frac{1}{2}$ " in width in $\frac{1}{2}$ ", $\frac{5}{8}$ " and $\frac{3}{4}$ " lumber.

$\frac{3}{4}$ " in width in 1", $1\frac{1}{4}$ ", $1\frac{1}{2}$ ", $1\frac{3}{4}$ " and 2" lumber.

1" in width in $2\frac{1}{2}$ " and thicker lumber.

STANDARD DEFECTS

1. **One Knot** $1\frac{1}{4}$ " in diameter.

2. **Two Knots** not exceeding in extent or damage one $1\frac{1}{4}$ " knot.

3. **Splits**—In lumber of random widths, one split not diverging more than 1" to a foot, and

not exceeding in length in inches the surface measure of the piece in feet; but not more than two defects of this character are admitted in a piece of the grade of Firsts and Seconds. Firsts and Seconds sold in any series of special widths 10" or wider will not allow more than one standard defect of this character in any piece.

4. **Wane** in excess of free wane allowed in Firsts and Seconds grade must be considered as standard defects in the proportion of 1" in widths, one-sixth the length of the board, extending parallel with the edge, or its equivalent at one or both ends, as one standard defect.

5. **Worm, Grub, Knot, and Rafting Pin Holes**, not exceeding in extent or damage one 1¼" knot.

6. **Heart** and other defects not enumerated as standard defects that do not damage the piece more than the standard defects allowed, are equivalent defects and must be so considered by the inspector.

CUTTINGS

1. The word **Cutting** as used in these rules means a portion of a board or plank obtained by cross cutting, by ripping, or by both.

2. The term **Clear Face Cutting**, as used in these rules, means a cutting having one face clear and the reverse face sound.

3. The term **Sound Cutting**, as used in these rules, means a cutting free from rot and shake and other defects which materially impair the strength of the piece.

GOOD EDGE

1. The term **Good Edge**, as used in these rules, will admit no unsound defects, excepting a slight amount of wane, not to exceed one-third the length and one-third the thickness of the piece, or its equivalent in other defects.

STANDARD GRADES

1. The standard grades of Tupelo lumber are as follows: Firsts, Seconds, No. 1 Common, No.

2 Common, No. 3 Common, Wagon Box Boards, B & Better and "C."

2. Firsts and Seconds are combined and the percentage of Firsts in the combined grade shall not be less than $33\frac{1}{3}\%$.

STANDARD LENGTHS

1. Standard lengths are 4', 5', 6', 7', 8', 9', 10', 11', 12', 13', 14', 15' and 16', but not over 15% of odd lengths are admitted.

2. In the grade of Firsts and Seconds the lengths are 8' to 16', but there must not be more than 20% under 12' and not to exceed 10% of 8' and 9' lengths, except as otherwise specified.

STANDARD THICKNESSES

1. The standard thicknesses of Tupelo lumber are: $\frac{1}{4}"$, $\frac{3}{8}"$, $\frac{1}{2}"$, $\frac{5}{8}"$, $\frac{3}{4}"$, 1", $1\frac{1}{4}"$, $1\frac{1}{2}"$, $1\frac{3}{4}"$, 2", $2\frac{1}{2}"$, 3", $3\frac{1}{2}"$, 4", $4\frac{1}{2}"$, 5", $5\frac{1}{2}"$, and 6".

2. The standard thicknesses for surfaced lumber are as follows:

Rough	Surfaced
$\frac{3}{8}"$ surfaced two sides to.....	$1\frac{3}{8}"$
$\frac{1}{2}"$ surfaced two sides to.....	$1\frac{5}{8}"$
$\frac{5}{8}"$ surfaced two sides to.....	$1\frac{7}{8}"$
$\frac{3}{4}"$ surfaced two sides to.....	$1\frac{9}{8}"$
1" surfaced two sides to.....	$1\frac{11}{8}"$
$1\frac{1}{4}"$ surfaced two sides to.....	$1\frac{13}{8}"$
$1\frac{1}{2}"$ surfaced two sides to.....	$1\frac{15}{8}"$
$1\frac{3}{4}"$ surfaced two sides to.....	$1\frac{17}{8}"$
2" surfaced two sides to.....	$1\frac{19}{8}"$
$2\frac{1}{2}"$ surfaced two sides to.....	$2\frac{1}{4}"$
3" surfaced two sides to.....	$2\frac{3}{4}"$
$3\frac{1}{2}"$ surfaced two sides to.....	$2\frac{5}{4}"$
4" surfaced two sides to.....	$2\frac{7}{4}"$

3. Lumber surfaced on one side only must be $\frac{1}{16}"$ full of the above thickness.

WEIGHTS

All weights are the same as cypress.

FIRSTS

1. Firsts must be 6" and over wide, 8' and over long. Pieces 4' to 9' surface measure must be clear. Pieces 10' to 15' surface measure may have one standard defect or its equivalent. Pieces 16' and over surface measure may have two standard defects or their equivalent.

SECONDS

1. Seconds must be 6" and over wide.
2. Standard defects are admitted according to surface measure as follows:
 - 5', 1 standard defect or its equivalent.
 - 8', 2 standard defects or their equivalent.
 - 12', 3 standard defects or their equivalent.
 - 16', 4 standard defects or their equivalent.
 - 20', 5 standard defects or their equivalent.

No. 1 COMMON

1. No. 1 Common must be 4" and over wide.
2. Lengths: 4' and over long, not over 30% shorter than 10', and not to exceed 10% of 4' and 5' lengths.
3. Pieces 4' and 5' long must be clear.
4. Pieces 4" wide, 6' and 7' long, must be clear.
5. Pieces 4" wide, 8' to 11' long, must work $66\frac{2}{3}\%$ clear face in not over two cuttings; pieces 4" wide, 12' to 16' long, must work $66\frac{2}{3}\%$ clear face in not over three cuttings. No cutting to be less than 2' long by the full width of the piece.
6. Pieces 6' long, 5" to 8" wide, may have one standard defect; pieces 6' long, 9" and over wide, may have two standard defects.
7. Pieces 5" to 7" wide, 7' to 11' long, must work $66\frac{2}{3}\%$ clear face in not over two cuttings; pieces 5" to 7" wide, 12' and over long, must work $66\frac{2}{3}\%$ clear face in not over three cuttings.
8. Pieces 8" and over wide, 7' to 9' long, must work $66\frac{2}{3}\%$ clear face in not over two cuttings; pieces 8" and over wide, 10' to 13' long, must work $66\frac{2}{3}\%$ clear face in not over

three cuttings; pieces 8" and over wide, 14' and over long, must work 66⅔% clear face in not over four cuttings.

9. No cutting to be considered which is less than 4" wide by 2' long or 3" wide by 3' long.

No. 2 COMMON

1. No. 2 Common must be 3" and over wide, 4' and over long, not to exceed 10% of 4' and 5' lengths.

2. Pieces 3" to 7" wide, 4' to 10' long, must work 50% sound in not over three cuttings; pieces 3" to 7" wide, 11' and over long, must work 50% sound in not over four cuttings.

3. Pieces 8" and over wide, 4' to 9' long, must work 50% sound in not over three cuttings; pieces 8" and over wide, 10' to 13' long, must work 50% sound in not over four cuttings; pieces 8" and over wide, 14' and over long, must work 50% sound in not over five cuttings.

4. No cutting to be considered which is less than 3" wide by 2' long.

No. 3 COMMON

1. No. 3 Common must be 3" and over wide, 4' and over long, and must contain at least 25% of sound cuttings. Minimum width of cuttings 1½", and no cutting considered which contains less than 36 square inches.

WAGON BOX BOARDS

1. Widths: Wide, 13" to 17". Narrow, 9" to 12".

2. Lengths: 11' to 16'.

3. Thickness: Must be 1" thick when shipping dry.

4. Bright or sound discolored sap or a few scattered pin worm holes may be admitted.

5. 11' lengths will admit 3" splits in one end, or their equivalent in one or both ends.

6. 12', 13', 15' and 16' lengths will admit of a 12' split in one end, or its equivalent in one or both ends.

7. 14' lengths will admit 6" splits in one end, or their equivalent in both ends; otherwise each piece in 11' to 13' lengths may contain defects that do not prevent the piece from cutting one side; or in each piece 14' to 16' long, one side and one end; sides to work 10' 6" long, ends to work 3' 6" long by the full width of the piece. Each side and end may contain one sound standard defect, or its equivalent, showing on one side.

8. NOTE—Five per cent. in feet of a shipment that can be reduced in measurement by cutting the end or edge or both to a size ordered must be accepted and measured as box boards; separate tally to be kept of such boards, showing reduction in measurement.

9. Inspectors are cautioned that lumber so warped that it cannot be used for box boards must be excluded from this grade.

B AND BETTER

1. Thicknesses: 1" to 2".

2. Widths: Shall be specified, 4", 5", 6", 8", 10" and 12", and may be furnished in assorted widths 4" to 12", admitting 20% of 7", 9" and 11" widths. May also be furnished in random widths, 13" and wider.

3. Lengths: 8' to 20'.

4. Shall be graded from the better side. Slightly discolored sap is no defect.

5. Pieces 4" and 5" wide shall be free from defects.

6. Pieces 6" to 8" wide may have one standard knot or an equivalent defect.

7. Pieces 10" wide may have one standard knot and one other equivalent defect.

8. Pieces 12" wide may have two standard knots and one other equivalent defect.

9. Pieces wider than 12" will admit additional defects in proportion as width increases.

C

1. Thicknesses: 1" to 2".

2. Widths: Shall be specified, 4", 5", 6", 8", 10" and 12", and may be furnished in assorted

widths 4" to 12" admitting 20% 7", 9" and 11" widths.

3. Lengths: 6' to 20'.

4. Shall be graded from the better side. Sound discolored sap is no defect. Standard knots, pin worm holes, and other defects will be admitted, but none that will prevent the use of each piece in its full length and width as a paint grade.

FLOORING

Thicknesses: $1\frac{3}{8}$ " hollow back.

Widths: $1\frac{1}{2}$ ", $2\frac{1}{4}$ " and $3\frac{1}{4}$ " face.

Lengths: 8' to 20' admitting 15% of 8', 9' and 10' lengths, but not to exceed 5% of 8' and 9' lengths. Odd lengths are not standard above 10'. May also be specified 4' to 7'.

Shall be graded from the finished side, B and Better and C.

B and Better—Shall admit sound sap without limit, but must be otherwise free from defects.

C—Shall comprise stock not up to grade of B, admitting unsound defects, and imperfections in manufacture which may be removed in two cuts with waste not exceeding 10% of the length of the piece.

The question of color shall not be considered in standard grades of flooring.

B and Better—Flooring may be furnished end matched two foot and longer in odd or even foot and half foot lengths; the proportion of lengths 2 to $3\frac{1}{2}$ feet shall be what the stock will produce up to 15%. End matched flooring may be furnished selected for color.

Ceiling—Shall be graded same as flooring, and from the better side.

Partition—Shall be graded same as flooring, but shall be graded from the poorer side.

DROP SIDING

Thickness: $1\frac{3}{8}$ ".

Widths: Standard, worked from 4" and 6" stock.

Lengths: 8' to 20' admitting 15% of 8', 9' and 10' lengths, and not to exceed 5% of lengths

under 10'. Odd lengths are not standard above 10'. May also be specified 4' to 7'.

C and Better—May be worked to any standard pattern desired, tongued and grooved or ship-lapped if so desired. Sound sap, slightly discolored, and two standard knots, or their equivalent in small knots, or other defects, will be admitted.

BEVEL SIDING.

Thickness: $\frac{1}{2}$ ".

Widths: Standard, worked from 4", 5" and 6" stock.

Lengths: 8' to 20' admitting not over 15% of 8', 9' and 10' and not to exceed 5% under 10'. Odd lengths are not standard above 10'. Shall be graded from the finished side, B and Better and C, and 4' to 7' lengths C and Better.

B and Better—Will admit sound sap slightly discolored, and other small defects which may be covered by the lap.

C—Shall comprise stock not up to the grade of B, and may contain defects or imperfections in manufacture which may be removed in two cuts with waste not exceeding 10% of the length of any one piece.

CODE OF ETHICS

Adopted at St. Louis, Mo., May 23, 1911.

— BY THE —

AMERICAN LUMBER TRADES CONGRESS

(A Convention of Thirty Retail, Manufacturing
and Wholesale Lumber Associations.)

PREAMBLE.

The object of this organization shall be to formulate and recommend a statement of the ethical relations which should govern between the buyers and sellers of lumber and its products. Nothing in the code of ethics should, in any way, interfere with the right of buyer and seller to make contracts on any terms that they see fit.

ORDER METHODS.

1. (a) All orders taken by personal solicitation should be in writing, and should be signed or acknowledged by both the buyer and the seller or by the authorized agent of each.

(b) All oral or telephone orders or conversations relative to such orders should be promptly acknowledged or confirmed in writing; otherwise there will be no evidence to hold either party.

(c) With mail or telegraph orders, the original orders received from a buyer should be considered the contract, and all settlements should be made upon the basis of the same, unless the buyer permits the seller to make certain changes, which may be requested in acknowledging the order. If shipment is made before the buyer grants such permission, or is able to instruct the mills, settlement should be made on the basis of the buyer's original order or such amendments as may have been made.

(d) Any changes or additions should be agreed to by both buyer and seller.

ORDER SPECIFICATIONS.

2. All orders should be complete and explicit and should specify the grades, terms and conditions of sale.

3. The latest grade names adopted by the different lumber associations should always be used in writing up each and every order or contract. Where the latest grade names are not used, or improper abbreviations are used, or any omissions cause a misunderstanding resulting in loss, it should be held that the party first writing up the order should be responsible and should sustain any loss incurred by reason of such errors or omissions.

ORDER ACKNOWLEDGMENT.

4. An order or contract should be considered binding when same has been duly signed by both buyer and seller or legally authorized agents of either party or has been acknowledged by the seller. (The man who is the exclusive recognized salaried salesman for a wholesaler or manufacturer should be considered their "authorized" agent, and a salaried employee holding a position of responsibility should be considered the authorized agent of the buyer.) Such acknowledgment should be sent to buyer immediately upon receipt of order and in due course of mail. Failure to send such acknowledgment should release the buyer from his order obligations.

5. No commission man, unless specially authorized, should be regarded as having the authority to bind any seller on orders taken by him, and all such orders should not be regarded as binding upon the sellers until the same have been acknowledged by them as duly accepted.

6. The terms of sale, as noted on original order or acceptance of same should be considered as much a part of the contract as the price at which the stock is purchased.

Should any shipment upon which cash has been advanced or discount has been taken, on arrival at destination, not be acceptable, for legitimate reasons, to buyers, or satisfactory adjustment cannot be made as to the acceptance of the stock, buyer should have the right to demand return of such money as he has paid, before allowing the shipment to be moved or disposed of elsewhere.

DELAY BY CARRIERS.

7. The seller should not be responsible for delays incident to transportation beyond his control, unless otherwise specifically agreed.

DEFINITE TIME FOR SHIPMENT.

8. When definite time for shipment is specified, failure to ship within said time should permit the buyer to cancel the order by wire.

9. Where definite date for shipment is not specified on the order, the buyer should not be entitled to cancel such order inside of thirty days from date of the order without the consent of the seller. Whenever shipments are not made within thirty days, the seller should forthwith notify the buyer, giving reasons for failure to ship. Buyer should then (or at any time within an additional thirty days) have the privilege of forthwith canceling by wire. Should he fail to so cancel, the seller should have an additional thirty days in which to ship. In the event of the seller's failure to so ship within the additional thirty days (and in the event the buyer has not received any additional information as to the shipment within this additional thirty days or ten days thereafter) the buyer should have the privilege of buying on the open market, and if the price shall have advanced, the seller should reimburse the buyer to the extent of such advance. Otherwise the order should remain in effect until canceled.

10. No order should be canceled after the same is loaded on the car; provided, however, that it has been filled in accordance with the contract between buyer and seller, except as to date of shipment. A copy of bill of lading or equivalent evidence, showing date of shipment, should be forwarded with invoice.

SPECIAL AND WORKED STOCK.

11. The seller should be protected in all cases where special stock has been manufactured or worked to apply on the order, providing the buyer is forthwith notified what such charge or loss will be on the part of the seller, if not allowed to ship out such portions as may have been worked to apply on the order, with the further understanding that shipment can be made with three days' grace, but the buyer should not be bound to accept the shipment if it cannot be loaded within the three days, regardless of the circumstances which may prevent the seller from so doing, except under car shortage conditions, when ten days' grace should apply.

CREDIT RATING.

12. Unless the buyer is rated and in good standing, as shown by the well-known lumber credit agencies, no order should be binding upon a seller until such credit and good standing shall have been satisfactorily proved to the seller. Such investigation should be completed within a reasonable time.

TRANSIT AND STORAGE SHIPMENTS.

13. Transit and storage shipments should be subject to the rules applying to direct shipments, except as otherwise stated and agreed to at the time of giving and accepting the order. Invoices for transit cars should bear the date of diversion. Where a specific carload is ordered, no other car should be substituted without consent of the buyer. It should be the duty of the seller to advise the buyer at the time the order for the transit car is accepted as to whether shipment is actually in transit or in storage at some intermediate point between original shipping point and ultimate destination, and to give the purchaser all the information in his possession regarding the present location and movement of the shipment in order to avoid misunderstanding.

ARBITRATION.

14. Except when inspection is provided for by association inspection bureaus, claims on grades, also differences regarding contracts, should be settled by arbitration on request of the parties interested.

Whenever a case for arbitration arises, one referee should be appointed by the retailers' association in which territory the claimant resides, and a second referee should be appointed by the manufacturers' or wholesalers' association covering the district in which the shipment originated. Said referee, as appointed, should, before consideration of the case is entered into, appoint a third

referee, and all referees should be appointed with due consideration to convenience and expense. The expense of such arbitration should be paid pro rata, as the fault may appear.

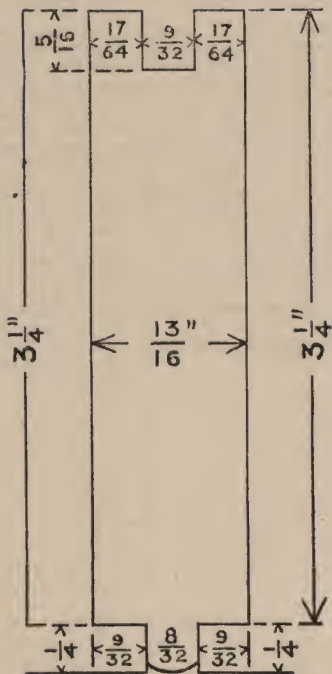
Arbitration methods should be employed wherever possible in the settlement of all matters in dispute.

A written statement of the findings in each case should be made by the referees, and their findings should be final and copies should be sent to the secretaries of each of the organizations through which the referees were appointed.

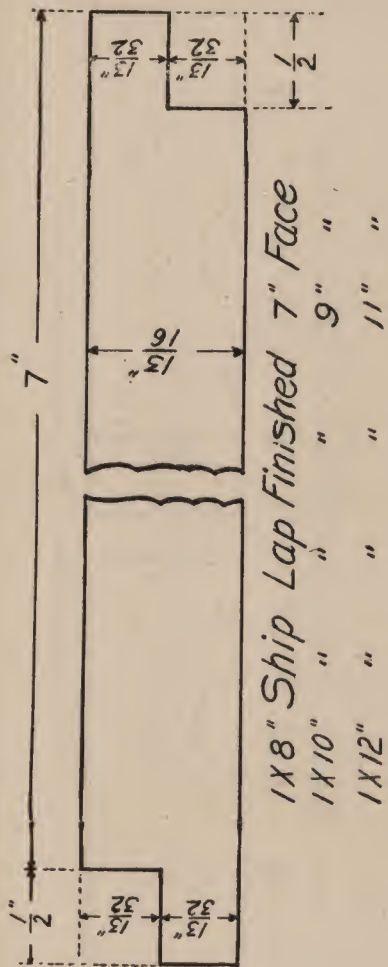
15. In the matter of costs of inspections made by association inspection bureaus on lumber, the grade of measurement of which has been complained of, if reinspection or measurement shows the grade of the total amount of the item complained of to be within 5 per cent. of the grade invoiced or within 1 per cent. of the quantity invoiced, the expense should be borne by complainant; if otherwise, by the shipper. The shipper must credit buyer with the amount of de-grade found by inspection, irrespective of percent determined between the grade sold and the grade shipped, at an equitable price. No claim on grade or measurement should be considered valid unless made by final consignee within five days after unloading the car.

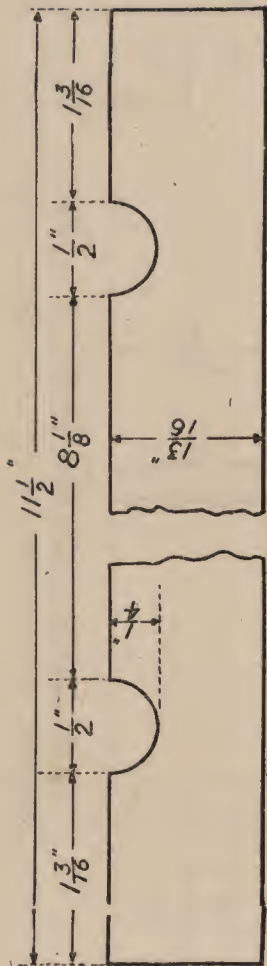
16. It should be recognized by lumber manufacturers and wholesalers that the retail distributor of lumber is a necessary factor in the trade, and a useful servant to the public, and, as such, should be recognized as the logical channel through whom to market their products.

17. It is the sense of the congress that this code of ethics should apply to all forest products handled by lumbermen.

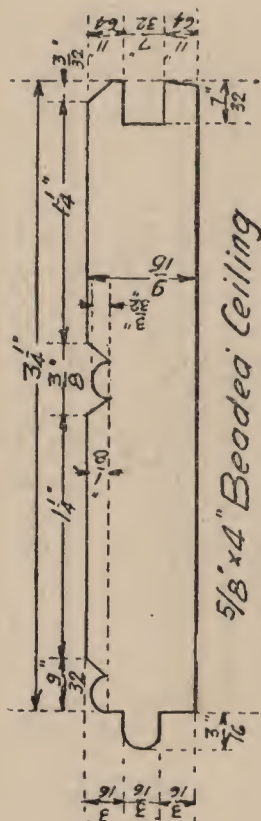


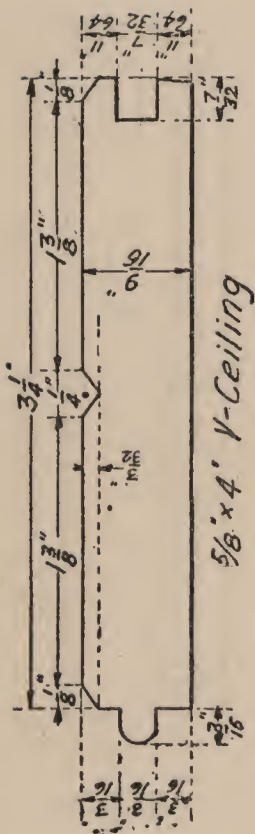
"x4" Flooring, S2S and Center Matched

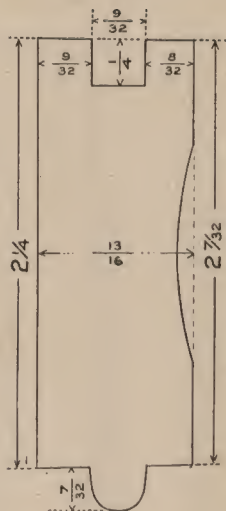




1x12 in. Grooved Roofing. This Pattern run 1x10 if desired.







1" x 3" Tupelo Flooring

Also furnished in $1\frac{1}{2}$ " and $3\frac{1}{4}$ " widths

Percentage table for figuring percentages of cutting lumber.

Table of Square Inches of Boards Containing 5 feet or more.

Ft.	100 %	80 %	50 %
4	576	461	288
5	720	576	360
6	864	691	432
7	1008	806	504
8	1152	922	576
9	1296	1037	648
10	1440	1152	720
11	1584	1267	792
12	1728	1382	864
13	1872	1498	936
14	2016	1613	1008
15	2160	1728	1080
16	2304	1843	1152
17	2448	1958	1224
18	2592	2074	1296
19	2736	2189	1368
20	2880	2304	1440
21	3024	2419	1512
22	3168	2534	1584
23	3312	2650	1656
24	3456	2765	1728
25	3600	2880	1800
26	3744	2995	1872
27	3888	3110	1944
28	4032	3226	2016
29	4176	3341	2088
30	4320	3456	2160

Percentage table for figuring percentages of cutting lumber.

Percentage of 80 and 50% of 8 feet and longer boards in lineal inches.

Length	100%	80%	50%
8	96	76 ^s	48
9	108	86 ⁴	54
10	120	96	60
11	132	105 ⁶	66
12	144	115 ²	72
13	156	124 ⁸	78
14	168	134 ⁴	84
15	180	144	90
16	192	153 ⁶	96
17	204	163 ²	102
18	216	172 ⁸	108
19	228	182 ⁴	114
20	240	192	120
21	252	201 ⁶	126
22	264	211 ²	132
23	276	220 ⁸	138
24	288	230 ⁴	144

Percentage table for figuring percentages of cutting lumber.

Percentage of 2 inch and wider rips on boards of 5 inches and wider.

Width	Rip 2 in.	Rip 2½ in.	Rip 3 in.	Rip 3½ in.	Rip 4 in.	Rip 4½ in.	Rip 5 in.	Rip ½ in.	Rip 6 in.	Rip 6½ n.	Rip 7 in.
5	40%	50%	60%	70%	80%	75	83½	78½	85½	81¼	76⅞
6	33⅓	41⅔	50	58⅓	66⅔	64⅔	71⅔	68⅔	75	71⅔	70
7	28⅔	35⅔	42⅔	50	57⅔	56¼	62½	61⅔	66⅔	65	63⅔
8	25	31¼	37½	43⅔	50	50	55⅔	55	60	59⅔	58⅔
9	22⅔	27⅔	33⅓	38⅔	44⅔	45	50	50	54⅔	54⅔	53⅔
10	20	25	30	35	40	40⅔	45	45	50	50	50
11	18⅔	22⅔	27⅔	31⅔	36⅔	37⅔	41⅔	41⅔	46⅔	46⅔	46⅔
12	16⅔	20⅔	25	29⅔	33⅔	34⅔	38⅔	39⅔	42⅔	42⅔	42⅔
13	15⅔	19⅔	23⅔	26⅔	30⅔	32⅔	35⅔	36⅔	40	40	40
14	14⅔	17⅔	21⅔	25	28⅔	30	33⅔	34⅔	37⅔	37⅔	37⅔
15	13⅔	16⅔	20	23⅔	26⅔	28⅔	31⅔	32⅔	35⅔	35⅔	35⅔
16	12⅔	15⅔	18⅔	21⅔	25	26⅔	29⅔	30⅔	33⅔	33⅔	33⅔
17	11⅔	14⅔	17⅔	20⅔	23⅔	25⅔	27⅔	28⅔	31⅔	31⅔	31⅔
18	11⅔	13⅔	16⅔	19⅔	22⅔	25	27⅔	30⅔	33⅔	36⅔	38⅔

